

VHF-FM REPEATER PLAN

1. Purpose. To establish guidelines for the installation and operation of all VHF-FM repeater and digipeater systems within the California Wing.

2. Scope. This plan shall govern all repeater and digipeater systems, existing and proposed, operated by California Wing, Nevada Wing, or Pacific Region, or any CAP unit operating repeaters within the geographical boundaries of the State of California.

3. General. All repeater and digipeater systems shall be installed and operated in accordance with CAPR 100-1 (dated 1 August 1996), Chapter 8.2 and NTIA regulations as outlined in NTIA Manual of Regulations and Procedures for Federal Frequency Management (Edition 9/95, with Revisions for September 1996 and January and May 1997.)

4. Frequencies. The standard CAP frequencies (143.90 MHz input, 148.150 MHz output) will be used for all repeaters.

a) If planning or experience indicates that use of the standard frequencies will result in undue interference between two repeaters or those frequencies are interfered with by an external source, then the alternate input frequency of 143.750 MHz may be authorized.

b) Should major interference exist from an external source or sources then at the discretion of the Director of Communications for California Wing and the recommendation of the Communication Engineers, the alternate repeater pair (143.750 MHz input, 148.125 MHz) can be utilized.

c) Use of 149.895 MHz will be limited to digipeating. Voice transmission is prohibited in certain areas of California and will not be used in frequency pairing.

5. Access. All repeaters will require sub-tone access. In each major metropolitan area the main repeater will be equipped with 100 Hz sub-tone for transient access. Repeaters in Southern California are exempt from this requirement, because of the serious Mexican interference that is on-channel and on 100 Hz sub-tone.

6. Repeater Control. All repeaters will be automatically turned on when any station keys the repeater on the proper RF Frequency and CTCSS tone.

A drop-out delay will be set as necessary by the local communications engineer. All repeaters will be equipped with a time-out timer set to drop the transmitted carrier at no less than 2 minutes and no more than 5 minutes.

7. Portable Repeaters. Will operate on the primary CAP repeater pair, unless prior coordination was made with CAWG/DC and the repeater will operate on a CTCSS tone of 203.5 Hz and have a power output of no more than 10 watts if used as an airborne repeater.

8. Financing. No unit, or member, will enter into any agreement, or contract, with any person, partnership, or corporation which will obligate the California Wing, CAP, or any of its units for any payments related to the acquisition, installation, maintenance, or continued use of any repeater or digipeater system without the prior written approval of the California Wing Commander.

a) A voluntary repeater and digipeater fund has been set up at California Wing CAP. Members are encouraged to contribute money to help support the repeater and digipeater system.

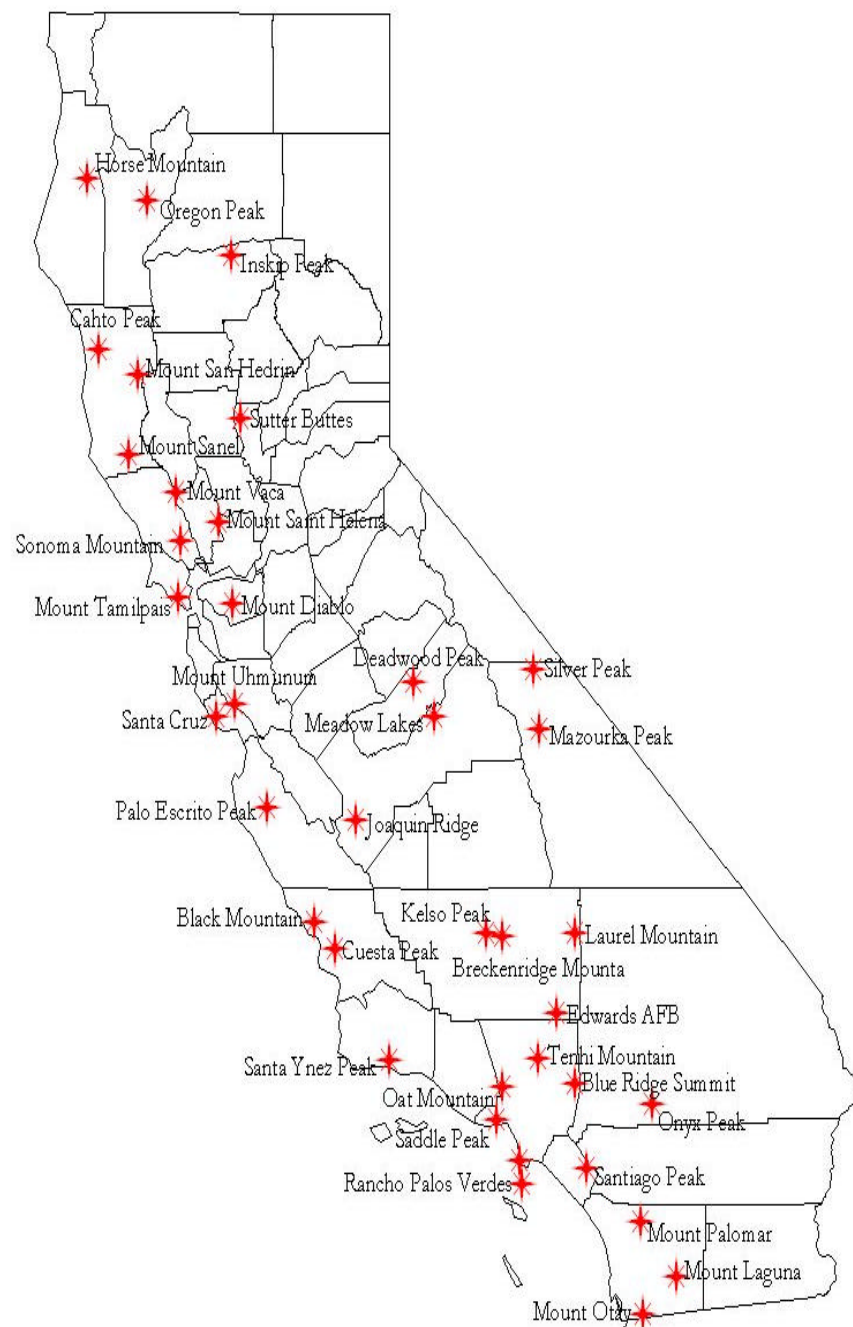
b) Money can be donated for the voluntary repeater and digipeater fund at any radio tune-up clinic, conference, or made directly to California Wing CAP, Attention: Repeater Fund.

9. Locations. Repeater and digipeater sites will be chosen to provide the widest possible area of service to the maximum number of users with a minimum of overlapping coverage and interference. A complete list of fixed location repeaters is attached to this plan.

Tactical	Packet	Alias'	Primary Rptr	Altenate Rptr	Facility Location	Nearest Town (Population)	Latitude	Longitude	AMSL	HAAT
Yosemite 1000	CA1000	ELTORO	186.2 / 100.0	[186.2]	Santiago Peak	El Toro, CA (El Toro MCAS)	33/42/43	117/31/56	5668	3992
Yosemite 1001	CA1001	MAZPK	67.0	-	Mazourka Peak	Independence, CA	36/58/33	118/07/05	9404	
Yosemite 1002	CA1002	[KELSO]	71.9	-	Kelso Peak	Bakersfield, CA	35/28/19	118/47/06	2720	
Yosemite 1003	CA1003	BLUE	173.8	-	Blue Ridge Summit	Wrightwood, CA	34/21/06	117/40/25	8517	3003
Yosemite 1004	CA1004	ONYX	127.3	[127.3]	Onyx Peak	Big Bear Lake, CA	34/11/31	116/42/56	9114	2197
Yosemite 1005	CA1005	[COAL]	82.5	-	Joaquin Ridge	Coalinga, CA	36/18/22	120/24/08	3600	2197
Yosemite 1006	CA1006	[MEADOW]	79.7	-	Meadow Lakes	Aubury Lakes, CA	37/04/07	119/25/36	4480	1755
Yosemite 1007	CA1007	[CRUZ]	-	103.5	Santa Cruz	Santa Cruz, CA	37/03/39	122/07/49	1980	
Yosemite 1008	CA1008	SJC	110.9	-	Mount Uhmunum	San Jose, CA	37/09/30	121/54/11	3387	
Yosemite 1009	CA1009	[TAM]	67.0	-	Mount Tamilpais	Mill Valley, CA	37/55/26	122/35/43	2520	
Yosemite 1010	CA1010	DIABLO	162.2 / 100.0	114.8 > 162.2	Mount Diablo	Clayton, CA	37/52/47	121/55/07	3685	
Yosemite 1011	CA1011	SILVER	123.0	-	Silver Peak	Bishop, CA	37/24/42	118/11/15	10800	
Yosemite 1012	CA1012	[PV1]	-	[118.8]	Rancho Palos Verdes	Rancho Palos Verdes, CA (West)	33/46/00	118/23/30	1240	1186
Yosemite 1013	CA1013	OAT	156.7	-	Oat Mountain	Chatsworth, CA	34/19/35	118/35/09	3525	2070
Yosemite 1014	CA1014	SNS	114.8	-	Palo Escrito Peak	Gonzales, CA	36/24/23	121/29/26	4467	
Yosemite 1015	CA1015	INSKIP	88.5	-	Inskip Peak	Paynes Creek, CA	40/20/30	121/56/00	3103	
Yosemite 1016	CA1016	FRESNO	136.5	-	Deadwood Peak	Oakhurst, CA	37/18/49	119/41/07	4560	
Yosemite 1017	CA1017	LAGUNA	146.2	[146.2]	Mount Laguna	Imperial, CA	32/53/07	116/25/03	7280	3972
Yosemite 1018	CA1018	[LAUREL]	[94.8]	-	Laurel Mountain	China Lake NWC	35/28/46	117/40/56	4470	
Yosemite 1019	CA1019	SBA	131.8	-	Santa Ynez Peak	Santa Barbara, CA	34/31/37	119/58/40	4260	2337
Yosemite 1020	CA1020	SLO	77.0	-	Cuesta Peak	San Luis Obsipo, CA	35/21/28	120/39/21	2808	
Yosemite 1021	CA1021	[TENHI]	151.4	-	Tenhi Mountain	Palmdale, CA	34/32.122	118/08.164		
Yosemite 1022	CA1022	HORSE	91.5	-	Horse Mountain	Willow Creek, CA	40/52/30	123/43/52	4951	
Yosemite 1023	CA1023	SADDLE	167.9	-	Saddle Peak	Malibu, CA	34/04/32	118/39/30	2790	2067
Yosemite 1024	CA1024	[SONOMA]	[156.7]	-	Sonoma Mountain	Sonoma, CA	38/19/40	122/34/30	2200	
Yosemite 1025	CA1025	[HELENA]	146.2	-	Mount Saint Helena	Calistoga, CA	38/40/31	122/37/25	4291	
Yosemite 1026	CA1026	[SANHED]	-	173.8	Mount San Hedrin	Potter Valley, CA	39/30/57	123/05/43	6175	
Yosemite 1027	CA1027	WEAVER	-	-	Oregon Peak	Weaverville, CA	40/43/09	122/58/47	3943	
Yosemite 1028	CA1028	[SANEL]	141.3	-	Mount Sanel	Hopland, CA	38/57/05	123/12/50	3353	
Yosemite 1029	CA1029	SIERRA	-	-	Sierra Peak	Corona, CA	33/51/00	117/39/05		
Yosemite 1030	CA1030	BRECK	85.4	-	Breckenridge Mountain	Bakersfield, CA	35/27/05	118/35/10	7578	4979
Yosemite 1031	CA1031	[CAHTO]	[74.4]	-	Cahto Peak	Laytonville, CA	39/41/10	123/34/55	4150	
Yosemite 1032	CA1032	[SNOW]	[88.5]	-	Snow Peak	Banning, CA	34/02/15	116/48/52	8025	6434
Yosemite 1033	CA1033	EVAL1	203.5	203.5	Evaluation / Test Station	CAWG and Vicinity				
Yosemite 1034	CA1034	[EAFB]	91.5	-	Edwards AFB	Rosamond, CA	34/52.395	117/54.218	2805	
Yosemite 1035	CA1035	SUTTER	151.4	-	Sutter Buttes	Marysville, CA	39/12/21	121/49/11	2117	
Yosemite 1036	CA1036	[OTAY]	110.9	-	Mount Otay	San Ysidro, CA	32/35/55	116/50/33	3564	
Yosemite 1037	CA1037	[VAFB]	[107.2]	-	Vandenburg AFB	Lompoc, CA	34/46/10	120/30/00	890	

Tactical	Packet	Alias'	Primary Rptr	Altenate Rptr	Facility Location	Nearest Town (Population)	Latitude	Longitude	AMSL	HAAT
Yosemite 1038	CA1038	[MIGUEL]	[136.5]	-	Mount San Miguel	San Diego, CA	32/41/47	116/56/06		
Yosemite 1039	CA1039	VACA	-	[127.3]	Mount Vaca	Vacaville, CA	38/28/12	122/06/12	2702	
Yosemite 1040	CA1040	[SOUTH]	[131.8]	-	South Fork Mountain	Redding, CA	40/39/11	122/31/30		
Yosemite 1041	CA1041	PV2	118.8	-	Rancho Palos Verdes, CA	Rancho Palos Verdes, CA (East)	33/35/40	118/19/51	1300	1194
Yosemite 1042	CA1042	[BLACK]	-	-	BlackMountain	Templeton, CA	35/33/30	120/54/40	2500	
Yosemite 1043	CA1043	[HEAPS]	-	-	Heaps Peak	Running Springs, CA	34/14/05	117/08/24	6241	1756
Yosemite 1044	CA1044	[PARK]	-	[79.7]	Park Ridge	Grant Grove Village, CA	36/43/24	118/56/30	7558	
Yosemite 1045	CA1045	[GOULD]	-	-	Gould Mountain	Independence, CA	36/46/48	118/22/36	13005	
Yosemite 1046	CA1046	[JORDAN]	[118.8]	-	Jordan Peak	Porterville, CA	36/10/53	118/35/51	9145	
Yosemite 1047	CA1047	[BUTLER]	[114.8]	-	Butler Peak	Fawnskin, CA	34/15/00	117/00/00	8537	
Yosemite 1048	CA1048	[BERTHA]	[131.8]	-	Bertha Peak	Big Bear Lake, CA	34/16/59	116/53/55	8201	
Yosemite 1049	CA1049	[PALA]	141.3	-	Mount Palomar	Escondido, CA	33/44/42	118/19/51		
Yosemite 1050	CA1050	[PLOW]	[88.5]	-	Plowshare Peak	Santa Maria, CA	35/03/00	120/02/24	3908	
Yosemite 1051	CA1051	[PINOS]	[179.9]	-	Mount Pinos	Frazier Park, CA	34/48/46	119/08/39	8836	

[] Denotes station
not operational at the
time this document was
printed.

**Repeater Map**